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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,122	05/04/2001	Donald E. Ackley	264/037	1952

34263 7590 02/05/2004

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EXAMINER

MARSCHER, ARDIN H

ART UNIT	PAPER NUMBER
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1631

DATE MAILED: 02/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/849,122

Applicant(s)

ACKLEY ET AL.

Examiner

Ardin Marschel

Art Unit

1631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-3,6-14 and 17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,7-14 and 17 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Due to the newly applied rejections as summarized below, the finality of the office action, mailed 7/29/03, is hereby withdrawn. The amendment, filed 9/30/03, has been entered.

Applicants' arguments, filed 9/30/03, have been fully considered and they are deemed to be persuasive to overcome previous rejections of record. Applicants' amendment, filed 9/30/03, is deemed fully responsive to the final office action, mailed 7/29/03. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. Upon reconsideration, the following rejections and/or objections are newly applied. They constitute the complete set presently being applied to the instant application.

### **PRIOR ART**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-3, 7-14, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhao et al. (P/N 5,962,856); taken in views of Spivey et al. (P/N 5,528,043).

Zhao et al. has been summarized in previous office actions as describing the basic array circuit device of the instant invention, but lacks a description of CMOS transistor practice as amended into the instant claims regarding column and row selection electronic elements.

The description of the imaging device circuit in Zhao et al. is directed to such a circuit device as being utilized for X-ray imaging, for example, as described in the SUMMARY OF THE INVENTION section in columns 2-3. Scanning of the imaging array elements is controlled via row and column circuitry as described in column 4, lines 36-64. Therefore, a description of the basic row/column selection is contained therein but without specifying the usage of CMOS transistor electronic elements for scanning control, but motivates and suggests such control via multiplexers etc.

Spivey et al. is also directed to imaging X-ray via devices and associated electronic control circuitry as summarized in the abstract. The row and column selection electronic circuit elements in the system of Spivey et al. is describes in column 5, line 6, through column 6, line 32. The transistor logic circuitry is described therein as being of the CMOS type. Row and column select transistors are cited in column 5, lines 6-38, for the CMOS array imager. The CMOS transistor circuitry for row and column selection is cited in column 5, lines 39-44, as is also the CMOS limitation which is now present in instant claim 1. This citation also states that such CMOS logic circuitry is

commonly used thus supplying common usage motivation for such CMOS practice. Instant claim 11 is also rejected hereinunder because the Vcc designation of the electrical voltage for transistors current output electronics is a common designation and is also specifically cited in Spivey et al. as a supply in Figure 8B. The control transistors in Figure 8B of the reference also show gates as well as being shift registers for such control as summarized in column 6, lines 13-32, thus also being inclusive of the limitations of instant claims 14.

Thus, it would have been obvious to someone of ordinary skill in the art at the time of the instant invention to utilize the X-ray imager technology of Zhao et al. with CMOS circuitry for row and column selection as motivated and suggested for such practice via its usage in Spivey et al. for the same type of imaging row/column selection circuitry as in Zhao et al. thus resulting in the practice of the instant invention. Instant claim 17 is included now as being rejected over the above combination of references because the return electrode as in instant claim 17 is reasonably described in Zhao et al. as the source lines (elements 40 in Figure 4B of Zhao et al.) which are described in column 7, line 66, through column 8, line 12, as being utilized for configuring electric fields on the array and are separately disposed on the array as reasonably another unit cell as cited in instant claim 17.

### **CLAIM OBJECTIONS**

Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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No claim is allowed.


Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the Central PTO Fax Center. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993)(See 37 CFR § 1.6(d)). The Central PTO Fax Center number is (703) 872-9306.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ardin Marschel, Ph.D., whose telephone number is (571)272-0718. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, Ph.D., can be reached on (571)272-0722.

Any inquiry of a general nature or relating to the status of this application should be directed to Legal Instrument Examiner, Tina Plunkett, whose telephone number is (571)272-0549 or to the Technical Center receptionist whose telephone number is (703) 308-0196.

January 29, 2004

  
ARDIN H. MARSCHEL  
PRIMARY EXAMINER